

# UNITED STA DEPARTMENT OF COMMERCE Patent and Trademark Office

### NOTICE OF ALLOWANCE AND ISSUE FEE DUE

IM81/1014

GOWLING STRATHY & HENDERSON SUITE 3800 COMMERCE COURT WEST TORONTO ON MSL IJ3 CANADA

AIR MAIL

APPLICATION NO.		FILING DATE TOTAL CLAIMS		EXAMINER AND GROUP ART UNIT		DATE MAILED	
	08/663,952	06/14/9	6 005	CHANEY, C	1745	10/14/9	
rst Named oplicant	LI,		35	USC 154(b) term ext. =	0 Da	vs.	

TITLE OF INVENTION

ELECTRODE MATERIAL FOR RECHARGEABLE BATTERIES AND PROCESS FOR THE PREPARATION THEREOF

۱ (	ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN.	TYPE	SMALL ENTITY	FEE DUE	DATE DUE
.								
1	1 T8/4620	364 429	-223.000	K46,	UTILI	TY NO	\$1320.	00 01/14/99

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN <u>THREE MONTHS</u> FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. <u>THIS STATUTORY PERIOD CANNOT BE EXTENDED.</u>

### HOW TO RESPOND TO THIS NOTICE:

- I. Review the SMALL ENTITY status shown above.

  If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:
  - A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
  - B. If the status is the same, pay the FEE DUE shown above.
- If the SMALL ENTITY is shown as NO:
- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.
- II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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PTOL-85 (REV. 10-96) Approved for use through 06/30/99. (0651-0033)



# **Patent and Trademark Office**

COMMISSIONER OF PATENTS AND TRADEMARKS Address:

Washington, D.C. 20231

APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.		
\ 08/663,9	952 06/14	/96, LI	. W	T8/462364		
•		IM81/1014 7		EXAMINER		
GOWLING SUITE 38	STRATHY &	•	CH	CHANEY, C		
	COURT WES	:T ·	ART UNIT	PAPER NUMBER		

TORONTO ON M5L IJ3 CANADA

DATE MAILED: 10/14/98

1745

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 

Application No. 08/663,952

Applicant(s)

Wu Li

Notice of Allowability

Examiner Carol Chaney

Group Art Unit

1745

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.
∑ This communication is responsive to <u>amendment filed 7-20-98</u>
The allowed claim(s) is/are 1, 5, and 10-12
☐ The drawings filed on are acceptable.
☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.
received in Application No. (Series Code/Serial Number)
received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
*Certified copies not received:
☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).
☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
Applicant MUST submit NEW FORMAL DRAWINGS
because the originally filed drawings were declared by applicant to be informal.
$\boxtimes$ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. <u>6</u> .
including changes required by the proposed drawing correction filed on, which has been approved by the examiner.
☐ including changes required by the attached Examiner's Amendment/Comment.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal lettter addressed to the Official Draftsperson.
☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.
Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.
Attachment(s)
Notice of References Cited, PTO-892
Information Disclosure Statement(s), PTO-1449, Paper No(s).
☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
□ Notice of Informal Patent Application, PTO-152
Examiner's Comment Regarding Requirement for Deposit of Biological Material

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### **EXAMINER'S AMENDMENT**

- 1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
- 2. Authorization for this examiner's amendment was given in a telephone interview with Arne Fors on October 5, 1998.
- **3.** The application has been amended as follows:

In claim 1, line 7 please insert 'lithiated metal oxide or lithiated mixed metal oxide"

between "a" and "lithium ion conductor".

## Allowable Subject Matter

- 4. Claimd 1, 5, and 10-12 are allowed.
- 5. The following is an examiner's statement of reasons for allowance:

The prior art fails to disclose or suggest lithium ion battery cathodes comprising active materials which are lithium nickel dioxide or lithium nickel cobalt oxide, wherein each particle is



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coated with a lithium metal oxide lithium ion conductor. A two-phase material, having a first core material and a second coating material is critical to applicants' invention. The prior art of Fey, (US Patent 5,486,346) fails to teach or suggest such a structure. As noted by the applicants in the response of 7-22-98, the processes disclosed by Fey for making cathode materials fail to include steps which are critical to forming applicants' two phase material. The prior art of Hope et al. (US Patent 4,808,496) suggests forming polymeric, ionically conductive coatings on transition metal oxide cathode active materials. However, a substitution of a lithiated metal oxide coating for the polymeric coating disclosed by Hope et al. is not taught or suggested, and would not have been obvious to one of ordinary skill in the art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hope et al., in US Patent 4,808,406 discloses cathode active metal oxides coated with a polymeric lithium ion conductor.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol Chaney whose telephone number is (703) 305-3777.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Maria Nuzzolillo Supervisory Patent Examiner Technology Center 1700

cc October 6, 1998